



ORDERING CODE

JV R 07 N 181 K 6 5 Y AW

Joyin ZnO Varistor  
久尹氧化鋅壓敏電阻

R=RoHS  
H=RoHS + Halogen free  
+ Non Flammable

Element Size (disc dia.)  
瓷片直徑別

- 05 =  $\phi$  5mm
- 07 =  $\phi$  7mm
- 10 =  $\phi$  10mm
- 14 =  $\phi$  14mm
- 20 =  $\phi$  20mm

Series 系列別

- N=Standard 標準系列
- S=High Surge 高突波電流系列
- U=Ultra Surge 超高突波電流系列

Varistor Voltage 電壓值

The first two digits indicate voltage.  
前兩位數字代表電壓

The third digit signifies the number of zeroes.  
第三位數字代表電壓0的次數

for example 例如：

- 080=8V
- 180=18V
- 181=180V
- 182=1800V

Varistor Voltage Tolerance  
壓敏電壓容許差

- K =  $\pm$  10%
- L =  $\pm$  15%
- M =  $\pm$  20%
- P =  $\pm$  25%

Lead Diameter  
線徑

- 6 =  $0.6 \pm 0.05$ mm
- 8 =  $0.8 \pm 0.05$ mm
- 1 =  $1.0 \pm 0.05$ mm

Lead Length & Packaging  
腳長及包裝方式

- 50 =  $5 \pm 1.0$ mm for Straight lead  
5  $\pm$  0.5mm for Kink lead
- U4 = 24mm min. for Bulk and Kink lead
- U5 = 25mm min. for Bulk and Straight lead
- AW= H<sub>0</sub> 16mm for Ammo and Kink lead
- AY = H<sub>0</sub> 20mm for Ammo and Straight lead
- RW= H<sub>0</sub> 16mm for T/R and Kink lead
- RY = H<sub>0</sub> 20mm for T/R and Straight lead

\* Special spec per request.

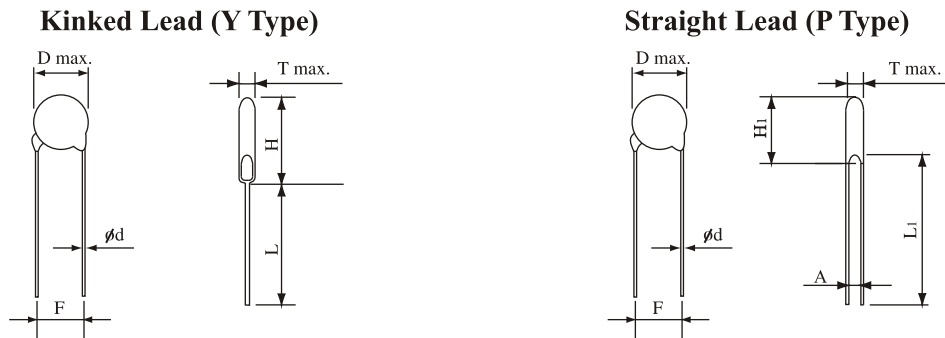
Lead Style 腳型

- Y=Vertical Kink Lead (standard)
- P=Straight Lead

\* Special lead styles per request

Lead Spacing 線距

- 5=5.0mm
- 7=7.5mm
- 1=10mm



Dimension Table

unit:mm

Diameter	5mm	7mm	10mm	14mm	20mm
D max.	7.5	9.0	12.5	16.5	23
d±0.05	0.6	0.6	0.8	0.8	1.0
F±1.0	5.0	5.0	7.5	7.5	10.0
H max.	11.0	13	18/*19	22/*23	28/*29
L <sub>1</sub> min.	25.0	25.0	25.0	25.0	25.0
L min.	24.0	24.0	24.0	24.0	24.0

\*Just for 182K

Table of T max., A & H<sub>1</sub> max.

unit:mm

Diameter	5mm			7mm			10mm			14mm			20mm		
	Type No.	T max.	A±0.8	H <sub>1</sub> max.	T max.	A±0.8	H <sub>1</sub> max.	T max.	A±0.8	H <sub>1</sub> max.	T max.	A±0.8	H <sub>1</sub> max.	T max.	A±0.8
180M	4.5	0.8	10.5	4.5	0.8	12.0	4.9	0.8	15.5	5.0	0.9	19.5	-	-	-
220M/L	4.5	0.9	10.5	4.5	0.9	12.0	4.9	0.9	15.5	5.0	1.0	19.5	5.3	1.0	26.5
270M/K	4.7	0.9	10.5	4.7	0.9	12.0	5.1	0.9	15.5	5.2	1.1	19.5	5.4	1.1	26.5
330M/K	4.7	1.0	10.5	4.7	1.0	12.0	5.1	1.0	15.5	5.2	1.2	19.5	5.4	1.2	26.5
390L/K	4.7	1.2	10.5	4.7	1.2	12.0	5.1	1.2	15.5	5.2	1.4	19.5	5.4	1.4	26.5
470L/K	5.0	1.2	10.5	5.0	1.2	12.0	5.5	1.2	15.5	5.6	1.4	19.5	5.6	1.4	26.5
560L/K	5.0	1.4	10.5	5.0	1.4	12.0	5.5	1.4	15.5	5.6	1.6	19.5	5.6	1.6	26.5
680L/K	5.5	1.7	10.5	5.5	1.7	12.0	6.0	1.7	15.5	6.1	1.9	19.5	6.1	1.9	26.5
820K	3.8	0.8	10.5	3.8	0.8	12.0	4.3	0.8	15.5	4.4	1.0	19.5	-	-	-
101K	3.9	0.8	10.5	3.9	0.8	12.0	4.4	0.8	15.5	4.5	1.0	19.5	5.1	1.2	26.5
121K	4.1	0.9	10.5	4.1	0.9	12.0	4.5	0.9	15.5	4.6	1.1	19.5	5.3	1.3	26.5
151K	4.5	1.2	10.5	4.5	1.2	12.0	4.9	1.2	15.5	5.1	1.4	19.5	5.6	1.6	26.5
181K	4.1	1.0	10.5	4.1	1.0	12.0	4.5	1.0	15.5	4.7	1.2	19.5	5.2	1.4	26.5
201K	4.2	1.0	10.5	4.2	1.0	12.0	4.6	1.0	15.5	4.8	1.2	19.5	5.3	1.4	26.5
221K	4.3	1.1	10.5	4.3	1.1	12.0	4.7	1.1	15.5	4.9	1.3	19.5	5.4	1.5	26.5
241K	4.4	1.1	10.5	4.4	1.3	12.0	4.8	1.3	15.5	5.0	1.5	19.5	5.5	1.7	26.5
271K	4.6	1.3	10.5	4.6	1.4	12.0	5.0	1.4	15.5	5.2	1.5	19.5	5.7	1.9	26.5
301K	4.8	1.3	10.5	4.8	1.5	12.0	5.2	1.6	15.5	5.4	1.7	19.5	5.9	2.1	26.5
331K	4.9	1.3	10.5	4.9	1.5	12.0	5.3	1.6	15.5	5.5	1.7	19.5	6.0	2.1	26.5
361K	5.1	1.8	10.5	5.1	1.9	12.0	5.5	1.9	15.5	5.7	2.1	19.5	6.2	2.3	26.5
391K	5.3	2.0	11.0	5.3	2.0	12.5	5.7	2.2	16.0	5.9	2.2	20.0	6.4	2.4	26.5
431K	6.1	2.1	11.0	6.1	2.0	12.5	6.5	2.5	16.0	6.7	2.5	20.0	7.2	2.7	26.5
471K	6.4	2.2	11.0	6.4	2.3	12.5	6.8	2.6	16.0	7.0	2.7	20.0	7.5	2.9	27.0
511K	6.6	2.5	11.5	6.6	2.5	13.0	7.0	3.1	16.5	7.2	3.1	20.5	7.7	3.3	27.0
561K	6.9	2.8	11.5	6.9	2.8	13.0	7.3	3.4	16.5	7.5	3.4	20.5	8.0	3.6	27.0
621K	7.2	3.1	11.5	7.2	3.1	13.0	7.6	4.0	16.5	7.8	3.8	20.5	8.3	4.1	27.0
681K	7.5	3.4	11.5	7.5	3.4	13.0	8.0	4.4	16.5	8.2	4.1	20.5	8.7	4.4	27.0
751K	7.9	3.7	11.5	7.9	3.7	13.0	8.4	4.4	16.5	8.6	4.3	20.5	9.1	4.5	27.0
781K	-	-	-	8.1	3.9	13.0	8.6	4.6	16.5	8.8	4.6	20.5	9.3	4.8	27.0
821K	-	-	-	8.3	4.1	13.0	8.8	4.6	16.5	9.0	4.6	20.5	9.5	4.8	27.0
911K	-	-	-	-	-	-	9.4	5.4	16.5	9.6	5.4	20.5	10.1	5.7	27.0
102K	-	-	-	-	-	-	9.9	5.4	16.5	10.1	5.6	20.5	10.7	5.8	27.0
112K	-	-	-	-	-	-	10.5	5.7	16.5	10.7	6.1	20.5	11.2	6.3	27.0
182K	-	-	-	-	-	-	12.6	9.8	18.5	12.8	10.2	22.5	13.5	10.4	29.0



**RATING AND CHARACTERISTICS**

**Standard Varistor - 5mm**

Ordering Code	Varistor Voltage at 1 mA		Maximum Allowable Voltage		Maximum Clamping Voltage	Withstanding Surge Current (8/20 μs)		Rated Wattage (W)	Energy (10/1000 μs) (J)	Certification
	DC (V)	Tolerance	ACrms (V)	DC (V)	V@5A (V)	1 Time (A)	2 Times (A)			
JV◇05N180M65□△△	18	± 20%	11	14	※ 40	100	50	0.01	0.6	☆ ☆
JV◇05N220L65□△△	22	± 15%	14	18	※ 48				0.7	☆ ☆
JV◇05N270K65□△△	27		17	22	※ 60				0.9	☆ ☆
JV◇05N330K65□△△	33	20	26	※ 73	1.1				☆ ☆	
JV◇05N390K65□△△	39	25	31	※ 86	1.2				☆ ☆	
JV◇05N470K65□△△	47	30	38	※104	1.5				☆ ☆	
JV◇05N560K65□△△	56	35	45	※123	1.8				☆ ☆	
JV◇05N680K65□△△	68	40	56	※150	2.1				☆ ☆	
JV◇05N820K65□△△	82	50	65	145	2.8				☆ ☆	
JV◇05N101K65□△△	100	± 10%	60	85	175	400	200	0.1	3.5	☆ ☆
JV◇05N121K65□△△	120		75	100	210				4.0	☆ ☆
JV◇05N151K65□△△	150		95	125	260				5.5	☆ ☆
JV◇05N181K65□△△	180		115	150	320				6.5	☆ ☆
JV◇05N201K65□△△	200		130	170	355				7.1	★ ☆ ☆ ☆
JV◇05N221K65□△△	220		140	180	380				7.8	★ ☆ ☆ ☆
JV◇05N241K65□△△	240		150	200	415				8.4	★ ☆ ☆ ☆
JV◇05N271K65□△△	270		175	225	475				9.9	★ ☆ ☆ ☆
JV◇05N301K65□△△	300		195	250	525				10.5	★ ☆ ☆ ☆
JV◇05N331K65□△△	330		210	275	575				11.5	★ ☆ ☆ ☆
JV◇05N361K65□△△	360		230	300	620				13.0	★ ☆ ☆ ☆
JV◇05N391K65□△△	390		250	320	675				15.0	★ ☆ ☆ ☆
JV◇05N431K65□△△	430		275	350	745				16.5	★ ☆ ☆ ☆
JV◇05N471K65□△△	470		300	385	810				17.5	★ ☆ ☆ ☆
JV◇05N511K65□△△	510		320	418	880				18.5	★ ☆ ☆ ☆
JV◇05N561K65□△△	560	350	460	940	19.5	★ ☆ ☆ ☆				
JV◇05N621K65□△△	620	385	505	1050	20.5	★ ☆ ☆ ☆				
JV◇05N681K65□△△	680	420	560	1150	21.5	★ ☆ ☆ ☆				
JV◇05N751K65□△△	750	460	615	1290	22.5	★ ☆ ☆ ☆				

※ The clamping voltage from 180M to 680K are tested at current 1A.

◇ : R=RoHS, H=RoHS+Halogen free +Non flammable

□ : Lead Style ( Y=Vertical kink, P=Straight )

△ △ : Lead Length & Packaging (see p.18)

**Application notes for UL , CSA and VDE recongnized components related standards**

Standard No.	UL1414	UL1449(3 <sup>rd</sup> Edition)	CSA C22.2	IEC61051-1 VDE IEC61051-2 IEC61051-2-2
Title	Across- the- line Components	Transient Voltage Surge Suppressors	Accessories and parts for electronic equipment	Varistors for use in electronic equipment
File No.	E154922	E325508	LR101867-1/-8/-15	19006-4790-0002
Symbols	★	☆	★	★

**PULSE LIFETIME RATINGS - 5mm**

**V-I CHARACTERISTIC CURVE - 5mm**

